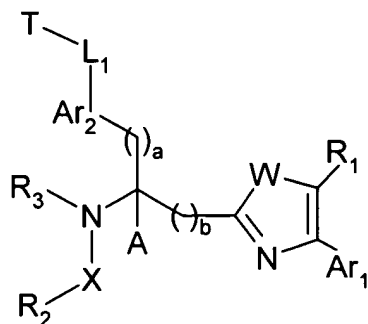


WHAT IS CLAIMED IS:

1. A compound of Formula (I):



(I)

- 5 wherein

a and b are equal to 0 and 1; wherein the values of 0 and 1 comprise a direct bond and -CH₂-, respectively, and wherein the -CH₂- group is optionally substituted 1 to 2 times with a substituent group, wherein said substituent group(s) or the term substituted refers to groups comprising: -alkyl, -aryl, -alkylene-aryl, -arylene-alkyl, -alkylene-arylene-alkyl, -O-alkyl, -O-aryl, or -hydroxyl;

W is -O-, -S-, or -N(R₄)-;

wherein

R₄ is

- a) -hydrogen;
- b) -alkyl;
- c) -L₂-D-G;
- d) -L₂-D-alkyl;
- e) -L₂-D-aryl;
- f) -L₂-D-heteroaryl;
- g) -L₂-D-cycloalkyl;
- h) -L₂-D-heterocyclyl;
- i) -L₂-D-arylene-alkyl;
- j) -L₂-D-alkylene-cycloalkyl;
- k) -L₂-D-alkylene-heterocyclyl;
- l) -L₂-D-alkylene-aryl;

- m) – L₂-D-alkylene-heteroaryl;
 n) – L₂-D-alkylene-arylene-alkyl;
 o) – L₂-D-alkylene-heteroarylene-alkyl;
 p) – L₂-D-alkyl-G;
 5 q) – L₂-D-aryl-G;
 r) – L₂-D-heteroaryl-G;
 s) – L₂-D-cycloalkyl-G;
 t) – L₂-D-heterocyclyl-G;
 u) – L₂-D-arylene-alkyl-G;
 10 v) – L₂-D-alkylene-cycloalkyl-G;
 w) – L₂-D-alkylene-heterocyclyl-G;
 x) – L₂-D-alkylene-aryl-G;
 y) – L₂-D-alkylene-heteroaryl-G;
 z) – L₂-D-alkylene-arylene-alkyl-G; or
 15 aa) – L₂-D-alkylene-heteroarylene-alkyl-G;

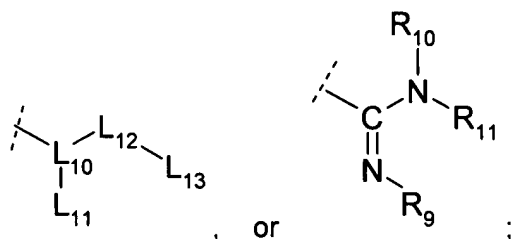
wherein

L₂ is a direct bond, –alkylene, –alkenylene, or –alkynylene;

D is a direct bond, –CH₂–, –O–, –N(R₅)–, –C(O)–, –CON(R₅)–, –N(R₆)C(O)–,
 20 –N(R₆)CON(R₅)–, –N(R₅)C(O)O–, –OC(O)N(R₅)–, –N(R₅)SO₂–, –
 SO₂N(R₅)–, –C(O)–O–, –O–C(O)–, –S–, –S(O)–, –S(O₂)–, or
 –N(R₅)SO₂N(R₆)–, –N=N–, or –N(R₅)–N(R₆)–,

wherein R₅ and R₆ are independently selected from the group
 consisting of : –hydrogen, –alkyl, –aryl, –arylene-alkyl, –alkylene-
 aryl, and –alkylene-arylene-alkyl;

25 G is –H, –alkyl, –CN, –SO₃H, –P(O)(OH)₂, –P(O)(O-alkyl)(OH), –CO₂H,
 –CO₂-alkyl, an acid isostere, –NR₇R₈,



wherein

L₁₀ is alkylene, cycloalkylene, heteroarylene, arylene, or heterocyclylene;

L₁₂ is -O-, -C(O)-N(R₄₀)-, -C(O)-O-, -C(O)-, or -N(R₄₀)-CO-N(R₄₁)-;

5 L₁₃ is hydrogen, alkyl, alkenyl, alkynyl, heterocyclyl, heteroaryl, or -alkylene-aryl;

10 L₁₁ is hydrogen, alkyl, alkenyl, alkynyl, -alkylene-aryl, -alkylene-heteroaryl, alkylene-O-alkylene-aryl, -alkylene-S-alkylene-aryl, -alkylene-O-alkyl, -alkylene-S-alkyl, -alkylene-NH₂, -alkylene-OH, -alkylene-SH, -alkylene-C(O)-OR₄₂, -alkylene-C(O)-NR₄₂R₄₃, -alkylene-NR₄₂R₄₃, -alkylene-N(R₄₂)-C(O)-R₄₃, -alkylene-N(R₄₂)-S(O₂)-R₄₃, or the side chain of a natural or non-natural amino acid;

15 R₄₂ and R₄₃ are independently selected from the group consisting of hydrogen, aryl, alkyl, and alkylene-aryl;

wherein

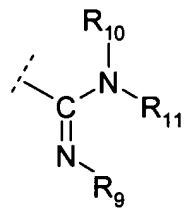
20 R₄₂ and R₄₃ may be taken together to form a ring having the formula - (CH₂)_q-Y-(CH₂)_r- bonded to the nitrogen atom to which R₁₁ and R₁₂ are attached, wherein q and r are, independently, 1, 2, 3, or 4; Y is -CH₂-, -C(O)-, -O-, -N(H)-, -S-, -S(O)-, -SO₂-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -NHSO₂-, -SO₂N(H)-, -(O)CO-, -NHSO₂NH-, -OC(O)-, -N(R₄₄)-, -N(C(O)R₄₄)-, -N(C(O)NHR₄₄)-, -N(SO₂NHR₄₄)-, -N(SO₂R₄₄)-, or -N(C(O)OR₄₄)-; or

25 R₄₂ and R₄₃ may be taken together, with the nitrogen atom to which they are attached, to form a heterocyclyl or heteroaryl ring.

R₄₀, R₄₁, and R₄₄ are independently selected from the group consisting of: hydrogen, aryl, alkyl, or alkylene-aryl.

and wherein

R_7 and R_8 are independently selected from the group consisting of
 5 hydrogen, -alkyl, $-L_3-E$ -alkyl, $-L_3-E$ -aryl, $-C(O)$ -alkyl, $-C(O)$ -



aryl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, and

wherein

R_9 , R_{10} , and R_{11} are independently selected from the group
 consisting of : -hydrogen, -alkyl, -aryl, -arylene-alkyl, -
 10 alkylene-aryl, and -alkylene-arylene-alkyl;

L_3 is a direct bond, -alkylene, -alkenylene, or -alkynylene;

E is a direct bond, $-\text{CH}_2-$, $-\text{O}-$, $-\text{N}(R_{12})-$, $-\text{C}(O)-$, $-\text{CON}(R_{12})-$,
 , $-\text{N}(R_{12})\text{C}(O)-$, $-\text{N}(R_{12})\text{CON}(R_{13})-$, $-\text{N}(R_{12})\text{C}(O)\text{O}-$,
 - $\text{OC}(O)\text{N}(R_{12})-$, $-\text{N}(R_{12})\text{SO}_2-$, $-\text{SO}_2\text{N}(R_{12})-$, $-\text{C}(O)-\text{O}-$,
 15 - $\text{O}-\text{C}(O)-$, $-\text{S}-$, $-\text{S}(O)-$, $-\text{S}(O_2)-$, $-\text{N}(R_{12})\text{SO}_2\text{N}(R_{13})-$, -
 $\text{N}=\text{N}-$, or $-\text{N}(R_{12})-\text{N}(R_{13})-$,

wherein

R_{12} and R_{13} are independently selected from the
 group consisting of : -hydrogen, -alkyl, -aryl, -
 20 arylen-alkyl, -alkylene-aryl, and -alkylene-
 arylen-alkyl;

A is hydrogen, -alkyl, -alkenyl, or -alkynyl;

25 X is

a) $-\text{C}(O)-$;

b) $-\text{CH}_2-$;

wherein the $-\text{CH}_2-$ group is optionally substituted 1 to 2 times with a
 substituent group, wherein said substituent group(s) are selected from the

group consisting of: -alkyl, -aryl, -alkylene-aryl, -arylene-alkyl, -alkylene-arylene-alkyl, -O-alkyl, -O-aryl, and -hydroxyl.

c) a direct bond; or

d) $-\text{SO}_2-$;

5

R_1 is

a) -hydrogen;

b) -fluoro

c) -chloro

10

d) -bromo

e) -iodo

f) -cyano

g) -alkyl;

h) -aryl;

15

i) -alkylene-aryl;

j) -heteroaryl;

k) -alkylene-heteroaryl;

l) -cycloalkyl;

m) -alkylene-cycloalkyl

20

n) - heterocyclyl; or

o) - alkylene-heterocyclyl;

R_2 is

a) -perfluoroalkyl;

25

b) -J- R_{14} ;

c) -alkyl;

d) -aryl;

e) -heteroaryl;

f) -heterocyclyl;

30

g) -cycloalkyl;

h) $-\text{L}_4$ -aryl;

i) $-\text{L}_4$ -arylene-aryl;

j) $-\text{L}_4$ -arylene-alkyl;

k) -arylene-alkyl;

- l) -arylene-arylene-alkyl;
 m) -J-alkyl;
 n) -J-aryl;
 o) -J-alkylene-aryl;
 5 p) -J-arylene-alkyl;
 q) -J-alkylene-arylene-aryl;
 r) -J-arylene-arylene-aryl;
 s) -J-alkylene-arylene-alkyl;
 t) -L₄-J-alkylene-aryl;
 10 u) -arylene-J-alkyl;
 v) -L₄-J-aryl;
 w) -L₄-J-heteroaryl;
 x) -L₄-J-cycloalkyl;
 y) -L₄-J-cycloalkylene-alkyl;
 15 z) -L₄-J-heterocyclyl;
 aa) -L₄-J-arylene-alkyl;
 bb) -L₄-J-alkylene-arylene-alkyl;
 cc) -L₄-J-alkyl;
 dd) -L₄-J-R₁₄;
 20 ee) -L₄-J-alkylene-R₁₄;
 ff) -J-L₄-R₁₄;
 gg) -arylene-J-R₁₄;
 hh) -L₄-arylene-J-alkyl;
 ii) -L₄-alkylene-J-alkyl;
 25 jj) -L₄-arylene-J-aryl; or
 kk) -hydrogen;

wherein

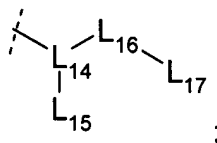
L₄ is a direct bond, -alkylene, -alkenylene, -alkynylene, heterocyclylene, cycloalkylene, arylene, or heteroarylene;

- 30 J is a direct bond, -CH₂-, -O-, -N(R₁₅)-, -C(O)-, -CON(R₁₅)-, -N(R₁₅)C(O)-, -N(R₁₅)CON(R₁₆)-, -N(R₁₅)C(O)O-, -OC(O)N(R₁₅)-, -N(R₁₅)SO₂-, -SO₂N(R₁₅)-, -C(O)-O-, -O-C(O)-, -S-, -S(O)-, -S(O₂)-, -N(R₁₅)SO₂N(R₁₆)-, -N=N-, or -N(R₁₅)-N(R₁₆)-,

wherein

R_{15} and R_{16} are independently selected from the group consisting of :
 -hydrogen, -alkyl, -aryl, -arylene-alkyl, -alkylene-aryl, and
 -alkylene-arylene-alkyl.

R_{14} is: -hydrogen, -alkyl, -aryl, -arylene-alkyl, -alkylene-aryl, -alkylene-arylene-alkyl, or



wherein

L_{14} is alkylene, cycloalkylene, heteroarylene, arylene, or heterocyclylene;

L_{16} is -O-, -C(O)-N(R_{45})-, -C(O)-O-, -C(O)-, or -N(R_{45})-CO-N(R_{46})-;

L_{17} is hydrogen, alkyl, alkenyl, alkynyl, heterocyclyl, heteroaryl, or -alkylene-aryl;

L_{15} is hydrogen, alkyl, alkenyl, alkynyl, -alkylene-aryl, -alkylene - heteroaryl, alkylene-O-alkylene-aryl, -alkylene-S-alkylene-aryl, -alkylene-O-alkyl, -alkylene-S-alkyl, -alkylene-NH₂, -alkylene-OH, -alkylene-SH, -alkylene-C(O)-OR₄₇, -alkylene-C(O)-NR₄₇R₄₈, -alkylene-NR₄₇R₄₈, -alkylene-N(R_{47})-C(O)-R₄₈, -alkylene-N(R_{47})-S(O₂)-R₄₈, or the side chain of a natural or non - natural amino acid;

R_{47} and R_{48} are independently selected from the group consisting of hydrogen, aryl, alkyl, and alkylene-aryl;

R_{47} and R_{48} may be taken together, with the nitrogen atom to which they are attached, to form a heterocyclyl or heteroaryl ring.

R_{45} and R_{46} are independently selected from the group consisting of hydrogen, aryl, alkyl, and alkylene-aryl;

R₃ is

- a) -hydrogen
- b) -alkyl
- 5 c) -aryl;
- d) -alkylene-cycloalkyl;
- e) -arylene-alkyl;
- f) -alkylene-aryl; or
- 10 g) -alkylene-heteroaryl;

Ar₁ is an aryl, heteroaryl, fused cycloalkylaryl, fused cycloalkylheteroaryl, fused heterocyclaryl, or fused heterocyclheteroaryl group optionally substituted 1 to 7 times;

Ar₂ is an arylene, heteroarylene, fused arylcycloalkylene, fused cycloalkylarylene, fused cycloalkylheteroarylene, fused heterocyclarylene, or fused heterocyclheteroarylene group optionally substituted 1 to 7 times;

L₁ is a direct bond, -CH₂-, -O-, alkylene, alkenylene, -O-alkylene-, -alkylene-O-, -N(R₂₃)-, -C(O)-, -CON(R₂₃)-, -N(R₂₃)C(O)-, -N(R₂₃)CON(R₂₄)-, -N(R₂₃)C(O)O-, -OC(O)N(R₂₃)-, -N(R₂₃)SO₂-, -SO₂N(R₂₃)-, -C(O)-O-, -O-C(O)-, -S-, -S(O)-, -S(O₂)-, -N(R₂₃)SO₂N(R₂₄)-, -N=N-, or -N(R₂₃)-N(R₂₄)-;

wherein

R₂₃ and R₂₄ are independently selected from the group consisting of : -hydrogen, -alkyl, -aryl, -arylene-alkyl, alkylene-aryl, -alkylene-arylene-alkyl, and a direct bond;

T is hydrogen, alkyl, cycloalkyl, heterocycl, aryl, heteroaryl, fused cycloalkylaryl, fused cycloalkylheteroaryl, fused heterocyclaryl, or fused heterocyclheteroaryl group optionally substituted 1 to 7 times, wherein the substituents are independently selected from the group consisting of :

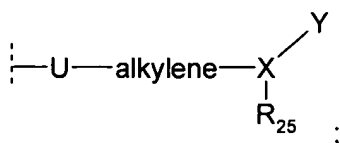
- a) -fluoro;
- b) -chloro;
- 30 c) -bromo;

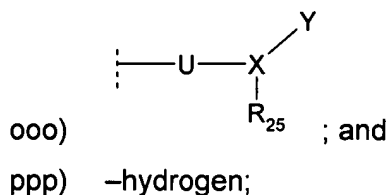
- d) -iodo;
e) -cyano;
f) -nitro;
g) -perfluoroalkyl;
5 h) -U-R₂₅;
i) -alkyl;
j) -aryl;
k) -heteroaryl;
l) -heterocyclyl;
10 m) -cycloalkyl;
n) -L₇-aryl;
o) -L₇-arylene-aryl;
p) -L₇-arylene-alkyl;
q) -arylene-alkyl;
15 r) -arylene-arylene-alkyl;
s) -U-alkyl;
t) -U-aryl;
u) -U-alkylene-aryl;
v) -U-arylene-alkyl;
20 w) -U-alkylene-arylene-aryl;
x) -U-arylene-arylene-aryl;
y) -U-alkylene-arylene-alkyl;
z) -L₇-U-alkylene-aryl;
aa) -arylene-U-alkyl;
25 bb) -L₇-U-aryl;
cc) -L₇-U-heteroaryl;
dd) -L₇-U-cycloalkyl;
ee) -L₇-U-heterocyclyl;
ff) -L₇-U-arylene-alkyl;
30 gg) -L₇-U-alkylene-arylene-alkyl;
hh) -L₇-U-alkyl;
ii) -L₇-U-alkylene-aryl-R₂₅;
jj) -L₇-U-alkylene-heteroaryl-R₂₅;
kk) -arylene-U-alkylene-R₂₅;

- ll) -heteroarylene-U-alkylene- R₂₅;
 mm) -L₇-U-aryl- R₂₅;
 nn) -L₇-U-heteroarylene- R₂₅;
 oo) -L₇-U-heteroaryl- R₂₅;
 5 pp) -L₇-U-cycloalkyl- R₂₅;
 qq) -L₇-U-heterocyclyl- R₂₅;
 rr) -L₇-U-arylene-alkyl- R₂₅;
 ss) -L₇-U-heteroarylene-alkyl- R₂₅;
 tt) -L₇-U-alkylene-arylene-alkyl- R₂₅;
 10 uu) -L₇-U-alkylene-heteroarylene-alkyl- R₂₅;
 vv) -L₇-U-alkylene-cycloalkylene-alkyl- R₂₅;
 ww) -L₇-U-alkylene-heterocyclylene-alkyl- R₂₅;
 xx) -L₇-U-alkyl- R₂₅;
 yy) -L₇-U- R₂₅;
 15 zz) -arylene-U- R₂₅;
 aaa) -heteroarylene-U- R₂₅;
 bbb) -heterocyclylene-U- R₂₅;
 ccc) -U-alkylene- R₂₅;
 ddd) -U-arylene- R₂₅;
 20 eee) -U-heteroarylene- R₂₅;
 fff) -U-alkylene-arylene- R₂₅;
 ggg) -U-alkylene-heteroarylene- R₂₅;
 hhh) -U-heteroarylene-alkylene- R₂₅;
 iii) -U-arylene-alkylene- R₂₅;
 25 jjj) -U-cycloalkylene-alkylene- R₂₅;
 kkk) -U-heterocyclylene-alkylene- R₂₅;
 III) -U-alkylene-arylene-alkyl- R₂₅;
 mmm) -U-alkylene-heteroarylene-alkyl- R₂₅;

30

nnn)





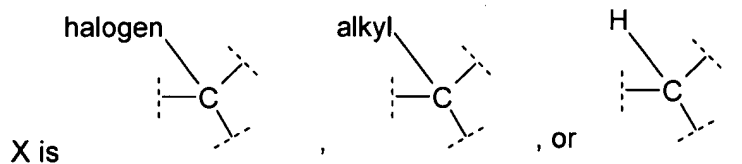
wherein

5 L_7 is a direct bond, -alkylene, -alkenylene, or -alkynylene;

U is a direct bond, -CH₂-, -O-, -N(R₂₆)-, -C(O)-, -CON(R₂₆)-, -N(R₂₆)C(O)-, -N(R₂₆)CON(R₂₇)-, -N(R₂₆)C(O)O-, -OC(O)N(R₂₆)-, -N(R₂₆)SO₂-, -SO₂N(R₂₆)-, -C(O)-O-, -O-C(O)-, -S-, -S(O)-, -S(O₂)-, -N(R₂₆)SO₂N(R₂₇)-, N=N-, or -N(R₂₆)-N(R₂₇)-;

10 wherein

R_{26} and R_{27} are independently selected from the group consisting of :
 -hydrogen, -alkyl, -aryl, -arylene-alkyl, -alkylene-aryl, and
 -alkylene-arylene-alkyl;



15 Y is hydrogen, -CO₂H, -alkylene-aryl, -alkyl, -aryl, -heteroaryl, -heterocyclyl, -cycloalkyl, -alkylene-heteroaryl, or -alkylene-cycloalkyl;

R_{25} is -SO₃H, -P(O)(OH)₂, -P(O)(O-alkyl)(OH), -CO₂H, -CO₂-alkyl, an acid isostere, -hydrogen, -alkyl, -aryl, -arylene-alkyl, -alkylene-aryl, or -alkylene-arylene-alkyl.

20

2. The compound according to claim 1, wherein W is -N(R₄)-, wherein R₄ is -alkyl, -L₂-D-alkyl, or -L₂-D-aryl, wherein L₂ is alkylene, and D is a direct bond, -C(O)- or -O-.

25 3. The compound according to claim 1, wherein W is -N(R₄)-, wherein R₄ is hydrogen.

4. The compound according to claim 1, wherein W is -N(R₄)-, wherein R₄ is -L₂-D-G, wherein L₂ is alkenyl or alkynyl, D is a direct bond, and G is hydrogen or alkyl.

5. The compound according to claim 1, wherein X is $-\text{C}(\text{O})-$ or CH_2 .

6. The compound according to claim 1, wherein R_1 is hydrogen or aryl.

5

7. The compound according to claim 1, wherein R_2 is: -alkyl, -aryl, $-\text{L}_4\text{-J-}$ cycloalkyl, arylene-alkyl, $-\text{L}_4\text{-arylene-J-alkyl}$, or -J-alkyl, wherein L_4 is alkylene or alkenylene, and J is a direct bond or $-\text{O}-$.

10

8. The compound according to claim 1, wherein R_3 is -H; X is $-\text{C}(\text{O})-$; R_2 is $-\text{L}_4\text{-arylene-J-alkyl}$, $-\text{L}_4\text{-J-cycloalkylene-alkyl}$ or $-\text{L}_4\text{-J-alkylene-aryl}$, wherein L_4 is alkylene, alkenylene, or a direct bond; and J is a direct bond, $-\text{O}-$, or $-\text{NH}-$.

9. The compound according to claim 1, wherein R_3 is hydrogen.

15

10. The compound according to claim 1, wherein Ar_1 is a phenyl or naphthyl group optionally having 1 to 5 substituents, wherein the substituents are independently selected from the group consisting of:

a) -fluoro;

20

b) -chloro;

c) -bromo;

d) -iodo;

e) -cyano;

f) -nitro;

25

g) -perfluoroalkyl;

h) $-\text{K-R}_{17}$;

i) -alkyl;

j) -aryl;

k) -heteroaryl;

30

l) -heterocyclyl;

m) -cycloalkyl;

n) $-\text{L}_5\text{-aryl}$;

o) $-\text{L}_5\text{-arylene-aryl}$;

- 5 p) - L₅-arylene-alkyl;
 q) -arylene-alkyl;
 r) -arylene-arylene-alkyl;
 s) -K-alkyl;
 t) -K-aryl;
 u) -K-alkylene-aryl;
 v) -K-arylene-alkyl;
 w) -K-alkylene-arylene-aryl;
 x) -K-arylene-arylene-aryl;
 10 y) -K-alkylene-arylene-alkyl;
 z) - L₅-K-alkylene-aryl;
 aa) -arylene-K-alkyl;
 bb) - L₅-K-aryl;
 cc) - L₅-K-heteroaryl;
 15 dd) - L₅-K-cycloalkyl;
 ee) - L₅-K-heterocyclyl;
 ff) - L₅-K-arylene-alkyl;
 gg) - L₅-K-alkylene-arylene-alkyl;
 hh) - L₅-K-alkyl;
 20 ii) - L₅-K-R₁₇;
 jj) -arylene-K-R₁₇; or
 kk) -hydrogen;

wherein

L₅ is a direct bond, -alkylene, -alkenylene, or -alkynylene;

- 25 K is a direct bond, -CH₂-, -O-, -N(R₁₈)-, -C(O)-, -CON(R₁₈)-, -N(R₁₈)C(O)-, -N(R₁₈)CON(R₁₉)-, -N(R₁₈)C(O)O-, -OC(O)N(R₁₈)-, -N(R₁₈)SO₂-, -SO₂N(R₁₈)-, -C(O)-O-, -O-C(O)-, -S-, -S(O)-, -S(O₂)-, -N(R₁₈)SO₂N(R₁₉)-, -N=N-, or -N(R₁₈)-N(R₁₉)-,

wherein

- 30 R₁₇, R₁₈, and R₁₉ are independently selected from the group consisting of: -hydrogen, -alkyl, -aryl, -arylene-alkyl, -alkylene-aryl, or -alkylene-arylene-alkyl.

11. The compound according to claim 1, wherein Ar₁ is a phenyl group substituted 1 to 5 times with substituents independently selected from the group consisting of:

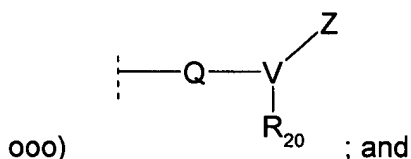
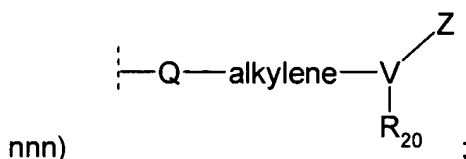
- 5
- a) -fluoro;
 - b) -chloro;
 - c) -bromo;
 - d) -iodo; or
 - e) -nitro.

10 12. The compound according to claim 1, wherein Ar₂ comprises a phenylene or naphthylene group optionally having 1 to 5 substituents, wherein the substituents are independently selected from the group consisting of:

- 15
- a) -fluoro;
 - b) -chloro;
 - c) -bromo;
 - d) -iodo;
 - e) -cyano;
 - f) -nitro;
 - g) -perfluoroalkyl;
 - 20 h) -Q-R₂₀;
 - i) -alkyl;
 - j) -aryl;
 - k) -heteroaryl;
 - l) -heterocyclyl;
 - 25 m) -cycloalkyl;
 - n) -L₆-aryl;
 - o) -L₆-arylene-aryl;
 - p) -L₆-arylene-alkyl;
 - q) -arylene-alkyl;
 - 30 r) -arylene-arylene-alkyl;
 - s) -Q-alkyl;
 - t) -Q-aryl;
 - u) -Q-alkylene-aryl;

- v) -Q-arylene-alkyl;
w) -Q-alkylene-arylene-aryl;
x) -Q-arylene-arylene-aryl;
y) -Q-alkylene-arylene-alkyl;
5 z) -L₆-Q-alkylene-aryl;
aa) -arylene-Q-alkyl;
bb) -L₆-Q-aryl;
cc) -L₆-Q-heteroaryl;
dd) -L₆-Q-cycloalkyl;
10 ee) -L₆-Q-heterocyclyl;
ff) -L₆-Q-arylene-alkyl;
gg) -L₆-Q-alkylene-arylene-alkyl;
hh) -L₆-Q-alkyl;
ii) -L₆-Q-alkylene-aryl-R₂₀;
15 jj) -L₆-Q-alkylene-heteroaryl-R₂₀;
kk) -arylene-Q-alkylene- R₂₀;
ll) -heteroarylene-Q-alkylene- R₂₀;
mm) -L₆-Q-aryl- R₂₀;
nn) -L₆-Q-heteroarylene- R₂₀;
20 oo) -L₆-Q-heteroaryl- R₂₀;
pp) -L₆-Q-cycloalkyl- R₂₀;
qq) -L₆-Q-heterocyclyl- R₂₀;
rr) -L₆-Q-arylene-alkyl- R₂₀;
ss) -L₆-Q-heteroarylene-alkyl- R₂₀;
25 tt) -L₆-Q-alkylene-arylene-alkyl- R₂₀;
uu) -L₆-Q-alkylene-heteroarylene-alkyl- R₂₀;
vv) -L₆-Q-alkylene-cycloalkylene-alkyl- R₂₀;
ww) -L₆-Q-alkylene-heterocyclylene-alkyl- R₂₀;
xx) -L₆-Q-alkyl- R₂₀;
30 yy) -L₆-Q- R₂₀;
zz) -arylene-Q- R₂₀;
aaa) -heteroarylene-Q- R₂₀;
bbb) -heterocyclylene-Q- R₁₈;
ccc) -Q-alkylene- R₂₀;

- ddd) -Q-arylene- R₂₀;
 eee) -Q-heteroarylene- R₂₀;
 fff) -Q-alkylene-arylene- R₂₀;
 ggg) -Q-alkylene-heteroarylene- R₂₀;
 5 hhh) -Q-heteroarylene-alkylene- R₂₀;
 iii) -Q-arylene-alkylene- R₂₀;
 jjj) -Q-cycloalkylene-alkylene- R₂₀;
 kkk) -Q-heterocyclylene-alkylene- R₂₀;
 III) -Q-alkylene-arylene-alkyl- R₂₀; or
 10 mmm) -Q-alkylene-heteroarylene-alkyl- R₂₀;



ppp) -hydrogen,

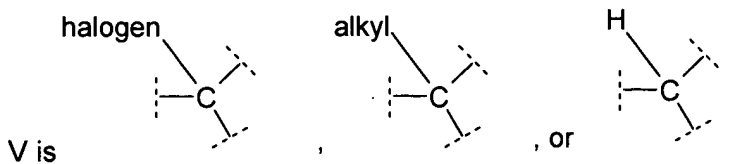
wherein

15 L₆ is a direct bond, -alkylene, -alkenylene, or -alkynylene;

Q is a direct bond, -CH₂-, -O-, -N(R₂₁)-, -C(O)-, -CON(R₂₁)-, -N(R₂₁)C(O)-, -N(R₂₁)CON(R₂₂)-, -N(R₂₁)C(O)O-, -OC(O)N(R₂₁)-, -N(R₂₁)SO₂-, -SO₂N(R₂₁)-, -C(O)-O-, -O-C(O)-, -S-, -S(O)-, -S(O₂)-, -N(R₂₁)SO₂N(R₂₂)-, N=N-, or -N(R₂₁)-N(R₂₂)-;

20 wherein

R₂₁ and R₂₂ are independently selected from the group consisting of: -hydrogen, -alkyl, -aryl, -arylene-alkyl, -alkylene-aryl, or -alkylene-arylene-alkyl;



25 Z is hydrogen, -CO₂H, -alkylene-aryl, -alkyl, -aryl, -heteroaryl, -heterocyclyl, -cycloalkyl, -alkylene-heteroaryl, or -alkylene-cycloalkyl;

R_{20} is $-\text{SO}_3\text{H}$, $-\text{P}(\text{O})(\text{OH})_2$, $-\text{P}(\text{O})(\text{O-alkyl})(\text{OH})$, $-\text{CO}_2\text{H}$, $-\text{CO}_2\text{-alkyl}$, an acid isostere, hydrogen, -alkyl, -aryl, -arylene-alkyl, -alkylene-aryl, or -alkylene-arylene-alkyl.

5 13. The compound according to claim 1, wherein Ar_2 comprises a phenyl or naphthyl group optionally substituted 1 to 5 times, wherein the substituents are independently selected from the group consisting of:

- 10 a) -fluoro;
 b) -chloro;
 c) -bromo;
 d) -iodo;
 e) $-\text{Q}-\text{R}_{20}$;
 f) -alkyl;
 g) -aryl;
15 h) -arylene-alkyl;
 i) $-\text{Q}-\text{alkyl}$; and
 j) -arylene- $\text{Q}-\text{alkyl}$;

wherein

Q is: $-\text{CH}_2-$, $-\text{O}-$, $-\text{C}(\text{O})-$, or $-\text{C}(\text{O})-\text{O}-$; and

20 R_{20} is: -hydrogen, -alkyl, -aryl, cycloalkyl, -alkenyl, $-\text{CO}_2\text{H}$, or an acid isostere.

25 14. The compound according to claim 1, wherein Ar_2 is a phenyl group substituted 1 to 5 times, wherein the substituents are independently selected from the group consisting of

- 30 a) -fluoro;
 b) -chloro;
 c) -bromo;
 d) -iodo;
 e) $-\text{Q}-\text{R}_{20}$;
 f) -alkyl;
 g) -phenyl;
 h) -phenylene-alkyl;
 i) $-\text{Q}-\text{alkyl}$; or

j) -phenylene-Q-alkyl;

wherein

Q is: $-\text{CH}_2-$, $-\text{O}-$, $-\text{C}(\text{O})-$, or $-\text{C}(\text{O})-\text{O}-$; and

R_{20} is: -hydrogen, -alkyl, -phenyl, -cycloalkyl, alkenyl, or $-\text{CO}_2\text{H}$.

5

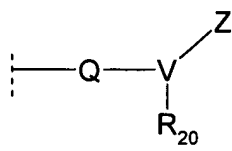
15. The compound according to claim 1, wherein Ar_2 is a phenyl group substituted 1 to 5 times, wherein the substituents are independently selected from the group consisting of :

10

a) -Q-alkyl;

b) -Q-arylene- R_{20} ;

c) -Q-alkylene-arylene- R_{20} ; and



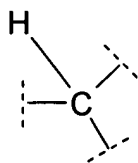
d) -Q-

wherein

15

Q is: $-\text{CH}_2-$, $-\text{O}-$, $-\text{C}(\text{O})-$, or $-\text{C}(\text{O})-\text{O}-$;

Z is $-\text{CO}_2\text{H}$ and an acid isostere;



V is ; and

R_{20} is: $-\text{CO}_2\text{H}$ or an acid isostere.

20

16. The compound according to claim 1, wherein L_1 is -O-alkylene- or a direct bond.

17. The compound according to claim 1, wherein T is an aryl group substituted by -U-alkylene- R_{25} , wherein U is -O- or a direct bond and R_{25} is $-\text{CO}_2\text{H}$ or an acid isostere.

25

18. The compound according to claim 1, wherein X and R₂ together form a group selected from the group consisting of:

tert-butoxycarbonyl, tert-butyl-methyl-carbonyl, 4-cyclohexyl-butyryl, 3-cyclohexyl-propionyl, 2-cyclohexyl-acetyl, 4-tert-butyl-phenyl)-carbonyl, 4-(4'-methoxyphenyl)-butyryl, 4-(4'-methoxyphenyl)-butyryl, 3-(4'-methoxyphenyl)-propionyl, 3-(3'-methoxyphenyl)-propionyl, 3-(4'-methoxy-phenyl)-acryl, 3-(4'-chloro-phenyl)-acryl, 2-(4'-methoxy-phenyl)-acetyl, 2-(4'-chloro-phenyl)-acetyl, 2-(4'-methylsulfonyl-phenyl)-acetyl, 2-(4'-methylsulfonyl-phenyl)-acetyl, 4-(4'-chloro-2'-methyl-phenoxy)-butyryl, 4-(4'-methoxyphenyl)-butyryl, and 4-(4'-cyclohexyl)-propyl.

19. The compound according to claim 1, wherein a equals 0, and the groups T, L₁, and Ar₂ together form a group selected from the group consisting of: 4'-n-butoxy-3'-n-butoxy carbonyl phenyl, or 4'-n-butoxy-3'-carboxyl phenyl.

20. The compound according to claim 1, wherein Ar₁ is selected from the group consisting of phenyl, naphthyl, 4-nitrophenyl, 4-chlorophenyl, 3-chlorophenyl, 3, 4-dichlorophenyl, 2, 4-dichlorophenyl, 2,5-dichlorophenyl, 2,6-dichlorophenyl, 4-cynophenyl, 4-bromophenyl, or pentafluorophenyl.

21. The compound according to claim 1, where the compound of Formula (I) comprises:

2-[3-(4'-Methoxyphenyl)-propionylamino]-2-(4'-n-butoxy-3'-carboxyphenyl)-2-ethyl[4-(4'-nitrophenyl)]imidazole;
 2-[3-(4'-Methoxy-phenyl)-acrylamino]-2-(4'-n-butoxy-3'-carboxyphenyl)-2-ethyl[4-(4'-nitrophenyl)]imidazole;
 2-[4-(4'-Methoxyphenyl)-butyryl amino]-2-(4'-n-butoxy-3'-carboxy phenyl)-2-ethyl[4-(2', 4'-dichlorophenyl)] imidazole;
 2-[4-(4'-Cyclohexyl)-propanoylamino]-2-(4'-n-butoxy-3'-carboxyphenyl)-2-ethyl[4-(2', 4'-dichlorophenyl)] imidazole;
 N-((1S)-2-(4-(1,1-Dicarboxymethoxy)phenyl)-1-[4-(2,4-dichlorophenyl)-1H-1-(1-butyl)imidazol-2-yl]ethyl)-4-tert-butylcyclohexanecarboxamide;
 4-(4-((2S)-2-[(4-tert-Butyl-cyclohexanecarbonyl)-amino]-2-[1-butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]-ethyl)-phenoxy-methyl)-benzoic acid;

- 4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[2-(4-methoxy-phenyl)-acetylamino]-ethyl}-phenoxy-methyl)-benzoic acid;
4-{4-[2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-(2-cyclopentyl-acetylamino)-ethyl]-phenoxy-methyl}-benzoic acid;
5 4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[(*trans*-4-methyl-cyclohexanecarbonyl)-amino]-ethyl}-phenoxy-methyl)-benzoic acid;
4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[(*trans*-4-ethyl-cyclohexanecarbonyl)-amino]-ethyl}-phenoxy-methyl)-benzoic acid;
10 4-(4-{(2S)-2-[(4-*tert*-Butyl-cyclohexanecarbonyl)-amino]-2-[4-(2,4-dichloro-phenyl)-(*E*)-1-pent-2-enyl-1H-imidazol-2-yl]-ethyl}-phenoxy-methyl)-benzoic acid;
4-(4-{2-[4-(2,4-Dichloro-phenyl)-(*E*)-1-pent-2-enyl-1H-imidazol-2-yl]- (2S)-2-[(*trans*-4-ethyl-cyclohexanecarbonyl)-amino]-ethyl}-phenoxy-methyl)-benzoic acid;
15 4-(4-{2-[1-But-2-ynyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[(*trans*-4-ethyl-cyclohexanecarbonyl)-amino]-ethyl}-phenoxy-methyl)-benzoic acid;
4-(4-{(2S)-2-[(4-*tert*-Butyl-cyclohexanecarbonyl)-amino]-2-[1-butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]-ethyl}-phenoxy)-benzoic acid;
20 4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[(*trans*-4-ethyl-cyclohexane-carbonyl)-amino]-ethyl}-phenoxy)-benzoic acid;
4-(4-{2-[4-(2,4-Dichloro-phenyl)-1-pent-2-enyl-1H-imidazol-2-yl]- (2S)-2-[(*trans*-4-ethyl-cyclohexane-carbonyl)-amino]-ethyl}-phenoxy)-benzoic acid;
4-(4-{2-[1-But-2-ynyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[(*trans*-4-ethyl-cyclohexanecarbonyl)-amino]-ethyl}-phenoxy)-benzoic acid;
25 4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[4-(3-fluorobenzylcarbonyl)-butyrylamino]-ethyl}-phenoxy)-benzoic acid;
4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[2-(4-methoxy-phenyl)-acetylamino]-ethyl}-phenoxy)-benzoic acid;
4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[2-(2,4-difluorophenyl)-acetylamino]-ethyl}-phenoxy)-benzoic acid;
30 4-{4-[2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-(4-methoxy-benzoylamino)-ethyl]-phenoxy}-benzoic acid;
4-{4-[2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-(3,5-difluoro-benzoylamino)-ethyl]-phenoxy}-benzoic acid;
35 4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[3-(2,4-difluoro-phenyl)-ureido]-ethyl}-phenoxy)-benzoic acid;
Trans-4-Ethyl-cyclohexane-carboxylic acid ((1S)-1-[1-butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]-2-{4-[4-(1H-tetrazol-5-yl)-phenoxy]-phenyl}-ethyl)-amide;
40 4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[3-(4-methoxy-phenyl)-ureido]-ethyl}-phenoxy)-benzoic acid;
4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[3-(3-methoxy-phenyl)-ureido]-ethyl}-phenoxy)-benzoic acid;
4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[3-(4-trifluoromethyl-phenyl)-2-(2S)-isobutyrylamino-propionylamino]-ethyl}-phenoxy)-benzoic acid;
45 4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[3-(4-*tert*-butyl-phenyl)-2-(2S)-isobutyrylamino-propionylamino]-ethyl}-phenoxy)-benzoic acid;

4-(4-{2-[1-Butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]- (2S)-2-[4-(4-chloro-phenyl)-(3S)-3-isobutylamino-butylamino]-ethyl]-phenoxy)-benzoic acid; and

5 4-tert-Butyl-cyclohexanecarboxylic acid ((1S)-1-[1-butyl-4-(2,4-dichloro-phenyl)-1H-imidazol-2-yl]-2-{4-[4-(1H-tetrazol-5-yl)-benzyloxy]-phenyl}-ethyl)-amide.

10 22. A pharmaceutically acceptable salt, solvate, or prodrug of a compound of Formula (I) according to claim 1.

23. The pharmaceutical composition of claim 22, wherein said compound is applied to the skin.

24. The pharmaceutical composition of claim 23, wherein said compound is administered in a formulation ratio of 0.1% to 99% of compound to topical excipient.

15 25. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1 sufficient to inhibit protein tyrosine phosphatase.

26. The pharmaceutical composition of claim 25, in the form of an oral dosage or parenteral dosage unit.

20 27. The pharmaceutical composition of claim 25, wherein said compound is administered as a dose in a range from about 0.003 to 500 mg/kg of body weight per day.

28. The pharmaceutical composition of claim 25, wherein said compound is administered as a dose in a range from about 0.1 to 200 mg/kg of body weight per day.

25 29. The pharmaceutical composition of claim 25, wherein said compound is administered as a dose in a range from about 0.1 to 100 mg/kg of body weight per day.

30 30. The pharmaceutical composition of claim 25, further comprising one or more therapeutic agents selected from the group consisting of alkylating agents, antimetabolites, plant alkaloids, antibiotics, hormones, biologic response modifiers, analgesics, NSAIDs, DMARDs, glucocorticoids, sulfonyleureas, biguanides, acarbose, PPAR agonists, DPP-IV inhibitors, GK activators, insulin, insulin mimetics, insulin

secretagogues, insulin sensitizers, GLP-1, GLP-1 mimetics, cholinesterase inhibitors, antipsychotics, antidepressants, anticonvulsants, HMG CoA reductase inhibitors, cholestyramine, and fibrates.

5 31. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat type I diabetes.

 32. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat type II diabetes.

10 33. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat immune dysfunction.

 34. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, 15 sufficient to treat AIDS.

 35. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat autoimmune diseases.

20 36. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat glucose intolerance.

 37. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat obesity.

25 38. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat cancer.

39. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat psoriasis.

40. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat allergic diseases.

41. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat infectious diseases.

42. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat inflammatory diseases.

43. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat diseases involving the modulated synthesis of growth hormone.

44. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat diseases involving the modulated synthesis of growth factors or cytokines which affect the production of growth hormone.

45. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a pharmacologically effective amount of the compound as claimed in claim 1, sufficient to treat Alzheimer's disease.

46. A method of inhibition protein tyrosine phosphatases which comprises administering to a subject in need thereof a pharmacologically effective amount of a compound as claimed in claim 1.

47. A method of prevention and/or treatment of PTPase mediated human diseases, treatment comprising alleviation of one or more symptoms resulting from that disorder, to an outright cure for that particular disorder or prevention of the onset of the

disorder, the method comprising administration to a human in need thereof a therapeutically effective amount of a compound of Formula (I) as claimed in claim 1.

48. The method of claim 46, further comprising administering to a subject in need thereof at least one adjuvant and/or additional therapeutic agent(s).

5 49. A method of treating PTPase mediated diseases, the method comprising administering to a subject in need thereof, a therapeutically effective amount of a compound of Formula (I) as claimed in claim 1, in combination with one or more therapeutic agents selected from the group consisting of alkylating agents, antimetabolites, plant alkaloids, antibiotics, hormones, biologic response modifiers,
10 analgesics, NSAIDs, DMARDs, glucocorticoids, sulfonylureas, biguanides, acarbose, PPAR agonists, DPP-IV inhibitors, GK activators, insulin, insulin mimetics, insulin secretagogues, insulin sensitizers, GLP-1, GLP-1 mimetics, cholinesterase inhibitors, antipsychotics, antidepressants, anticonvulsants, HMG CoA reductase inhibitors, cholestyramine, and fibrates. .

15 50. A method for treating acute and/or chronic inflammation, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

51. A method for treating type I or type II diabetes, which comprises administering to a subject in need thereof a therapeutically effective amount of a
20 compound of Formula (I) as defined in claim 1.

52. A method for treating immune dysfunction, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

53. A method for treating AIDS, which comprises administering to a subject in
25 need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

54. A method for treating autoimmune disease, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

55. A method for treating glucose intolerance, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

56. A method for treating cancer, which comprises administering to a subject
5 in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

57. A method for treating psoriasis, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

10 58. A method for treating allergic diseases, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

59. A method for treating infectious disease, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula
15 (I) as defined in claim 1.

60. A method for treating diseases involving the modulated synthesis of growth hormone, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

61. A method for treating modulated synthesis of growth factors or cytokines
20 which affect the production of growth hormone, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula (I) as defined in claim 1.

62. A method for treating Alzheimer's disease, which comprises administering to a subject in need thereof a therapeutically effective amount of a compound of Formula
25 (I) as defined in claim 1.